

REMARKS

Claims 1-16 are pending in the application. Claims 1 and 8 are independent.

Claim Objections

Claims 1-16 have been objected to because the “relatively high photosensitive cell” and “relatively low photosensitive cell” limitations as amended in the Reply filed on June 25, 2007 have not been provided for in claims 1, 8, 15, and 16.

In the pending claims, these limitations have been amended back to --main photosensitive cell-- and --auxiliary photosensitive cell--, respectively, to overcome this objection.

In view of these amendments, the Examiner is respectfully requested to reconsider and withdraw this objection.

Claim Rejections - 35 U.S.C. § 112

Claims 1-16 have been rejected under 35 U.S.C. § 112, second paragraph, because the term “relatively high” and “relatively low” in claim 1 is a relative term which renders the claim indefinite.

In view of this rejection, these claims limitations have been amended back to --main-- and --auxiliary--, respectively, to overcome this rejection.

These limitations are supported by the description in paragraph [0017] of the specification as filed.

The Examiner is respectfully requested to reconsider and withdraw this rejection.

An Embodiment of the Present Invention

An embodiment of the present invention is to provide the steps of:

preparing a solid-state image pickup apparatus configured to process and output an image signal output from a solid-state image sensor that converts an optical image representative of a field and focused on said solid-state image sensor by a lens to the image signal, said solid-state image sensor including a plurality of composite pixels which are arranged in a photosensitive array and each of which includes a main photosensitive cell, having a first area, and an auxiliary photosensitive cell of a same color as the main photosensitive cell, the auxiliary photosensitive cell having a second area smaller than the first area and a sensitivity lower than the main photosensitive cell;

control step of estimating influence of shading on the image signals from the main photosensitive cell and the auxiliary photosensitive cell; and

a signal processing step of lowering a chroma of the image signals by switching a color difference gain processing (*emphasis added*).

Such control and processing makes it possible, for example, to control a highlight part of an image signal possible.

Claim Rejections - 35 U.S.C. § 103

(a) Claims 1-4, 8-11, and 15-16 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over Yamashita et al. (USP 6,750,437) in view of Suzuki et al. (USP 4,710,803), and Nakano et al. (USP 6,094,220). This rejection is respectfully traversed.

In the Office Action, the Examiner states that Yamashita discloses “the auxiliary photosensitive cell different in sensitivity (different view points) from each other and respectfully formed by main photosensitive portion and an auxiliary photosensitive portion (col. 2, lines 38-50; col. 7, line 49 - col. 8, line 11).”

The Examiner also states that Suzuki discloses “an auxiliary photosensitive cell (fig. 4, ref. 29), inherently having a second area smaller than the first area (col. 3, lines 35-67).

The Examiner relies on the Nakano reference to show that it discloses a signal processor and an image extraction unit for processing an image signal, and a controller for switching signal processing the signal processor in accordance with components of the lens block and with a result of photometry. Further, the Examiner states that Nakano discloses that, in the image extraction unit, the image signal undergoes color difference gain processing wherein the image signal is switched in accordance with a microcomputer of the controller, which will lower a chroma of the image signal.

Applicants respectfully submit, however, that even assuming that the cited references can be combined, which Applicants do not admit, Yamashita in view of Suzuki and further in view of Nakano fails to disclose or suggest that the “auxiliary photosensitive cell” has “a second area smaller than the first area and a sensitivity lower than the main photosensitive cell,” as required in claim 1.

Claims 2-4, 6, and 7, variously dependent on claim 1, are allowable at least for their dependency on claim 1.

Claim 8 is allowable at least for the similar reasons as stated in the foregoing with regard to claim 1.

Claims 9-11, and 13-16, variously dependent on claim 8, are allowable at least for their dependency on claim 8.

The Examiner is respectfully requested to reconsider and withdraw this rejection.

(b) Claims 5 and 12 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over Yamashita et al. in view of Suzuki and Nakano, respectively, and further in view of Nakata et al. (USP 6,747,696). This rejection is respectfully traversed.

Claim 5, indirectly dependent on claim 1, is allowable at least for its dependency on claim 1.

Claim 12, indirectly dependent on claim 8, is allowable at least for its dependency on claim 1.

The Examiner is respectfully requested to reconsider and withdraw this rejection.

(c) Claims 6-7 and 13-14 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over Yamashita in view of Suzuki and Nakano, respectively, and further in view of Ng et al. (USP 5,699,102). This rejection is respectfully traversed.

Claims 6 and 7, variously dependent on claim 1, are allowable at least for their dependency on claim 1.

Claims 13 and 14, variously dependent on claim 8, are allowable at least for their dependency on claim 8.

The Examiner is respectfully requested to reconsider and withdraw this rejection.

Conclusion

Accordingly, in view of the above amendments and remarks, reconsideration of the rejections and allowance of the pending claims in the present application are respectfully requested.

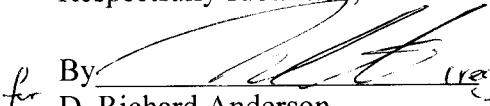
The Examiner is respectfully requested to enter this Amendment After Final in that it raises no new issues. Alternatively, the Examiner is respectfully requested to enter this Amendment After Final in that it places the application in better form for Appeal.

Should there be any outstanding matters that need to be resolved in the present application, the Examiner is respectfully requested to contact Maki Hatsumi Reg. No. 40,417 at the telephone number of the undersigned below, to conduct an interview in an effort to expedite prosecution in connection with the present application.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies to charge payment or credit any overpayment to Deposit Account No. 02-2448 for any additional fees required under 37.C.F.R. §§1.16 or 1.14; particularly, extension of time fees.

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Respectfully submitted,

for By  (reg. #40,417)
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